

9 DAMAGED VIDEO/AUDIO TAPE RECONSTRUCTION	Page 1 of 2
<div style="text-align: center;"> Division of Forensic Science PROCEDURES MANUAL: Forensic Imaging & Audio Analysis </div>	Amendment Designator:
	Effective Date: 22-March-2004
<div style="text-align: center; margin-bottom: 10px;"> 9 DAMAGED VIDEO/ AUDIO TAPE RECONSTRUCTION </div> <div> 9.1 Purpose <p>Damaged magnetic media can usually be repaired in order to restore evidentiary audio recordings or video images that would otherwise be lost.</p> </div> <div> 9.2 Equipment and Materials <p>The following equipment and materials may be used during the reconstruction process depending on the extent of damage to the evidence</p> <ul style="list-style-type: none"> • Video/Audio tape • Splicing blocks • Editing tabs • Razor blades • Scissors • Water • Mild soap • Isopropyl alcohol • Magnetic tape developer </div> <div> 9.3 Procedure <div> 9.3.1 Evidence will be received in accordance with the Division evidence handling policy (see Section 20 in the Quality Manual). </div> <div> 9.3.2 A general physical inspection of the submitted evidence will be conducted. If any residue is present which will inhibit playback or damage the equipment, the tape will be removed from the cassette, cleaned with isopropyl alcohol, and air-dried. After dry, the tape will be reloaded into a new housing. </div> <div> 9.3.3 If more damage is noted, further reconstruction may be necessary. </div> <div> 9.3.3.1 If needed, the media will be untangled. </div> <div> 9.3.3.2 When handling video or audio tape, the examiner will work to minimize any creases in the tape by keeping pressure on both ends. </div> <div> 9.3.3.3 If portions of the tape are determined to be irreparable or detrimental to playback, these portions will be removed using a razor blade or scissors and a splicing block. All irreparable portions will be returned with the submitted evidence. </div> <div> 9.3.3.4 In order to ensure correct orientation for splicing, the tape will be developed with magnetic tape developer, if necessary. </div> <div> 9.3.3.5 Restored segments will be spliced onto virgin tape, leader, and hubs (as necessary) using edit tabs. </div> <div> 9.3.3.6 Once spliced, restored portions will be placed in new cassettes, as necessary. Each new cassette will be marked in accordance with Division evidential procedures (see Section 20 of the Quality Manual). </div> <div> 9.3.4 Depending on the contributor's request, the reconstructed tape may be copied and returned, or continue the analysis process. </div> </div>	

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<div> <div>9.4 Calibration</div> <div> <p>Calibration procedures and scheduled maintenance for all equipment will be performed in accordance with manufacturers' Recommendations and recorded in the maintenance log located in the appropriate laboratory.</p> </div> <div>9.5 Calculations</div> <div> <p>Depending on the type and extent of the reconstruction, measurements may be made as to the length of the repaired or irreparable segments. If measurements are taken, they will be maintained with the examiner's notes.</p> </div> <div>9.6 Limitations</div> <div> <p>The degree of success of the reconstruction is highly dependent on the extent and type of damage to the magnetic tape.</p> </div> <div>9.7 Safety</div> <div> <div>9.7.1 Gloves should be worn to handle any potentially bio-hazardous evidence as well as when using chemicals.</div> <div>9.7.2 The location of MSDSs for chemicals used in the reconstruction process will be known by all examiners.</div> <div>9.7.3 Reconstruction often requires the use of extremely sharp cutting instruments. Proper and careful use of these instruments during the repair process is required.</div> </div> <div>9.8 References</div> <div> <p>Further instruction on specific use magnetic tape developer and other items used in reconstruction and analysis can be found in the owner's manuals and user's guides for each product. MSDSs for chemicals used in the reconstruction process are available in the appropriate laboratory.</p> </div> <div>► End</div> </div>	